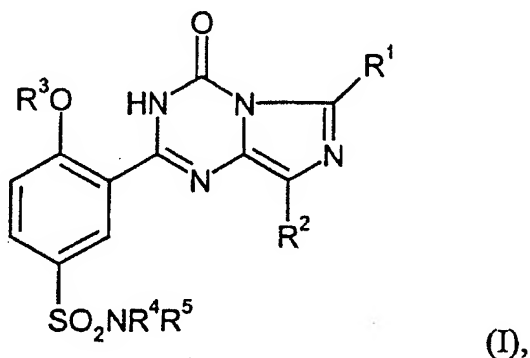


Amended Claims (Attorney Docket No. LeA 36 111)

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1. (Currently amended) ~~The use of cGMP-stimulating compounds for producing a pharmaceutical~~ A method for the treatment and/or prophylaxis of diseases in which an improvement in and/or a cure of a syndrome can be achieved by improving the microcirculation of a tissue which contains a cGMP-metabolizing phosphodiesterase comprising administering to a subject an effective amount of a cGMP-stimulating compound.
2. (Currently amended) ~~The use as claimed in claim 1 for producing a pharmaceutical for the treatment and/or prophylaxis of~~ The method of claim 1, wherein said disease is selected from coronary heart disease, cardiac insufficiency, pulmonary hypertension, bladder diseases, prostate hyperplasia, nitrate-induced tolerance or diseases of the eye, ~~for the treatment and/or prophylaxis of~~ central retinal or posterior ciliary arterial occlusion, central retinal venous occlusion, optical neuropathy, ~~and also~~ macular degeneration, ~~and~~ diabetes, ~~and for the treatment of~~ disturbances in the peristalsis of the stomach and esophagus, of female infertility, premature labor, preeclampsia, alopecia, psoriasis, the renal syndrome, cystic fibrosis and/or cancer.
3. (Currently amended) ~~The use as claimed in claim 1 for producing pharmaceuticals~~ The method of claim 1 for improving perception, concentration performance and learning performance and/or memory performance, for improving perception, concentration performance, learning performance and/or memory performance following cognitive disturbances, age-associated learning and memory disturbances, age-associated memory loss, vascular dementia, craniocerebral trauma, stroke, dementia which occurs following strokes (post-stroke dementia), post-traumatic craniocerebral trauma, general disturbances of concentration, concentration disturbances in children suffering from learning and memory problems, vascular dementia, dementia associated with Lewy bodies, dementia associated with degeneration of the frontal lobes including Pick's syndrome, Parkinson's disease, progressive nuclear palsy, dementia associated with corticobasal degeneration, amyotrophic lateral sclerosis (ALS), Huntington's disease, multiple sclerosis, thalamic degeneration, Creutzfeldt-Jacob dementia, new variant Creutzfeldt-Jacob dementia, HIV dementia, schizophrenia associated with dementia or Korsakoff's psychosis.

4. (Currently amended) ~~The use as claimed in at least one of claims 1 to 3, characterized in that~~  
at least one The method of claim 1, wherein the cGMP-stimulating compound is selected  
from the imidazo[1,3,5]triazinone of the general formula (I)



in which

- R¹ is straight-chain or branched alkyl having up to 4 carbon atoms,  
 R² is straight-chain or branched alkyl having up to 4 carbon atoms or  
 is (C₃-C₈)-cycloalkyl,  
 R³ is hydrogen or straight-chain or branched alkyl having up to 4 carbon  
 atoms,

R⁴ and R⁵ are identical or different and are hydrogen, (C₁-C₆)-alkoxy or hydroxyl or  
 are (C₁-C₈)-alkyl which is optionally substituted, up to 3 times, identically or  
 differently, by hydroxyl, (C₁-C₆)-alkoxy or radicals of the formulae



in which

R⁶ and R⁷ are identical or different and are hydrogen or (C₁-C₆)-alkyl,

and/or, for its part, (C₁-C₈)-alkyl is optionally substituted by phenyl or  
 phenoxy which, for their part, are optionally substituted, once to three times,

identically or differently, by halogen, hydroxyl, (C<sub>1</sub>-C<sub>6</sub>)-alkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl or a radical of the formula -SO<sub>2</sub>NR<sup>8</sup>R<sup>9</sup>,

in which

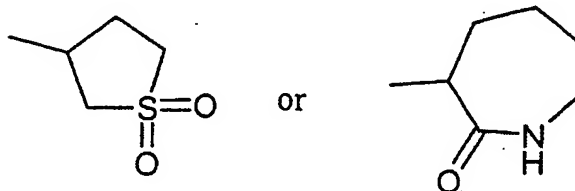
R<sup>8</sup> and R<sup>9</sup> are identical or different and are hydrogen or (C<sub>1</sub>-C<sub>6</sub>)-alkyl,

or

R<sup>4</sup> is hydrogen or methyl

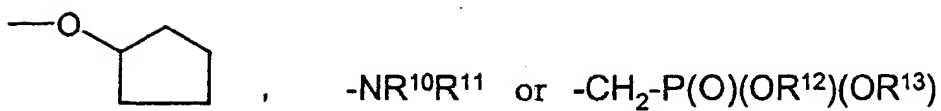
and

R<sup>5</sup> is radicals of the formulae



or

is phenyl which is optionally substituted, up to 3 times, identically or differently, by halogen, acetyl, (C<sub>1</sub>-C<sub>6</sub>)-alkoxy or radicals of the formulae



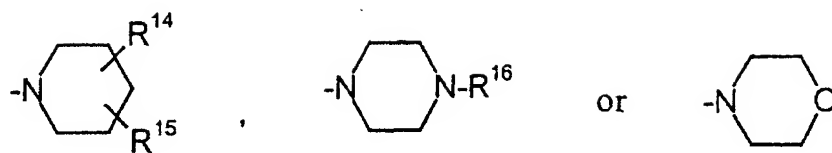
in which

R<sup>10</sup> and R<sup>11</sup> are identical or different and are hydrogen or (C<sub>1</sub>-C<sub>4</sub>)-alkyl,

R<sup>12</sup> and R<sup>13</sup> are identical or different and are hydrogen or (C<sub>1</sub>-C<sub>6</sub>)-alkyl,

or

R<sup>4</sup> and R<sup>5</sup>, together with the nitrogen atom to which they are bonded, are radicals of the formulae



in which

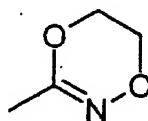
$R^{14}$  and  $R^{15}$  are identical or different and are hydroxyl, hydrogen or (C<sub>1</sub>-C<sub>4</sub>)-alkyl which is optionally substituted by hydroxyl,

or

$R^{14}$  is hydrogen

and

$R^{15}$  is a radical of the formula



or

$R^{14}$  and  $R^{15}$  together form a radical of the formula =N-O-CH<sub>3</sub>,

$R^{16}$  is hydrogen or (C<sub>1</sub>-C<sub>6</sub>)-alkyl which is optionally substituted by hydroxyl, or

is a 5- to 6-membered, aromatic heterocycle having up to 3 hetero atoms from the series, S, N and/or O,

and the salts, hydrates, hydrates of the salts, N-oxides and isomeric forms thereof ~~is/are~~ employed as (a) cGMP-stimulating compound(s).

5. (Currently amended) The ~~use as claimed in method of claim 4, characterized in that~~ wherein the compound is selected from the compounds of the general formula (I)

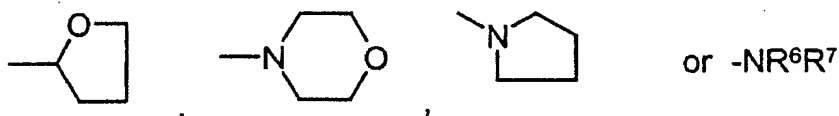
in which

$R^1$  is methyl or ethyl,

$R^2$  is straight-chain or branched alkyl having up to 3 carbon atoms or  
is (C<sub>3</sub>-C<sub>6</sub>)-cycloalkyl,

$R^3$  is straight-chain or branched alkyl having up to 3 carbon atoms,

$R^4$  and  $R^5$  are identical or different and are hydrogen, (C<sub>1</sub>-C<sub>4</sub>)-alkoxy or hydroxyl or are (C<sub>1</sub>-C<sub>7</sub>)-alkyl which is optionally substituted, up to 3 times, identically or differently, by hydroxyl, (C<sub>1</sub>-C<sub>4</sub>)-alkoxy or radicals of the formulae



in which

$R^6$  and  $R^7$  are identical or different and are hydrogen or methyl,

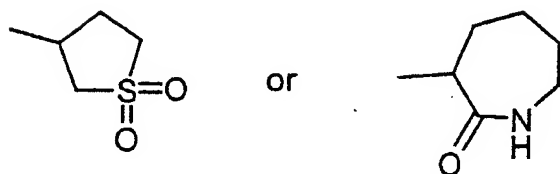
and/or, for its part, (C<sub>1</sub>-C<sub>7</sub>)-alkyl is optionally substituted by phenyl or phenoxy which, for their part, are optionally substituted, once to three times, identically or differently, by fluorine, chlorine, hydroxyl, (C<sub>1</sub>-C<sub>4</sub>)-alkoxy or (C<sub>1</sub>-C<sub>4</sub>)-alkyl or by a radical of the formula -SO<sub>2</sub>NH<sub>2</sub>,

or

$R^4$  is hydrogen or methyl,

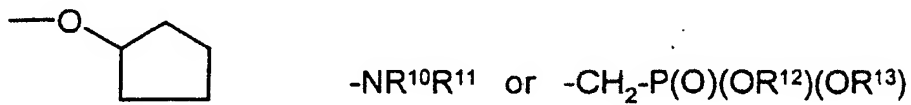
and

$R^5$  is radicals of the formulae



or

is phenyl which is optionally substituted, up to 3 times, identically or differently, by fluorine, chlorine, acetyl or (C<sub>1</sub>-C<sub>4</sub>)-alkoxy or by radicals of the formulae



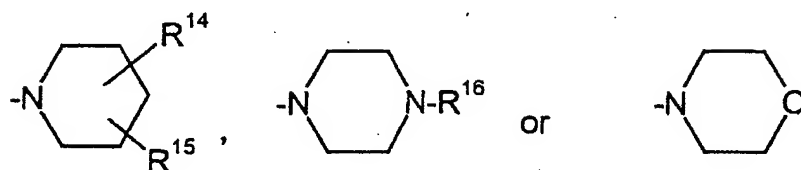
in which

R<sup>10</sup> and R<sup>11</sup> are identical or different and are hydrogen or methyl,

R<sup>12</sup> and R<sup>13</sup> are identical or different and are hydrogen or methyl,

or

R<sup>4</sup> and R<sup>5</sup>, together with the nitrogen atom to which they are bonded, are radicals of the formulae



in which

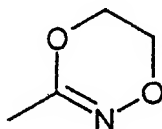
R<sup>14</sup> and R<sup>15</sup> are identical or different and are hydroxyl, hydrogen or (C<sub>1</sub>-C<sub>3</sub>)-alkyl which is optionally substituted by hydroxyl,

or

R<sup>14</sup> is hydrogen

and

R<sup>15</sup> is a radical of the formula



or

R<sup>14</sup> and R<sup>15</sup> together form a radical of the formula =N-O-CH<sub>3</sub>,

$R^{16}$  is hydrogen or (C<sub>1</sub>-C<sub>5</sub>)-alkyl which is optionally substituted by hydroxyl, or is pyridyl, pyrimidyl, furyl, pyrrol or thienyl,

and the salts, hydrates, hydrates of the salts, N-oxides and isomeric forms thereof ~~are employed as eGMP-stimulating compounds.~~

6. (Currently amended) The ~~use as claimed in method of~~ claim 4, ~~characterized in that~~ wherein the compound is selected from the compounds of the general formula (I)

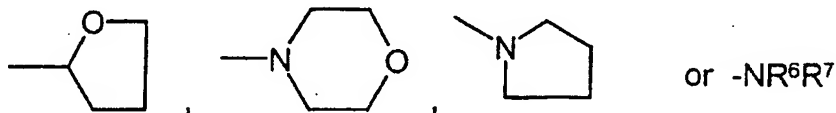
in which

$R^1$  is methyl or ethyl,

$R^2$  is n-propyl or cyclopentyl,

$R^3$  is methyl, ethyl or n-propyl,

$R^4$  and  $R^5$  are identical or different and are hydrogen, (C<sub>1</sub>-C<sub>3</sub>)-alkoxy or hydroxyl or are (C<sub>1</sub>-C<sub>6</sub>)-alkyl which is optionally substituted, up to 3 times, identically or differently, by hydroxyl or (C<sub>1</sub>-C<sub>3</sub>)-alkoxy or by radicals of the formulae



in which

$R^6$  and  $R^7$  are identical or different and are hydrogen or methyl,

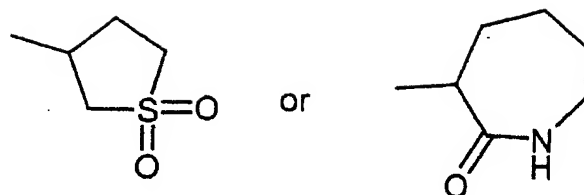
and/or, for its part, (C<sub>1</sub>-C<sub>6</sub>)-alkyl is optionally substituted by phenyl or phenoxy which, for their part, are optionally substituted, once to three times, identically or differently, by fluorine, hydroxyl or methoxy or by a radical of the formula – SO<sub>2</sub>NH<sub>2</sub>,

or

$R^4$  is hydrogen or methyl

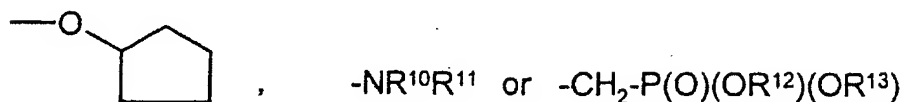
and

$R^5$  is radicals of the formulae



or

is phenyl which is optionally substituted, up to 3 times, identically or differently, by fluorine, acetyl or methoxy or by radicals of the formulae



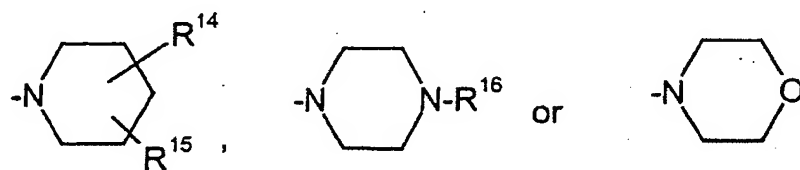
in which

R<sup>10</sup> and R<sup>11</sup> are identical or different and are hydrogen or methyl,

R<sup>12</sup> and R<sup>13</sup> are methyl,

or

R<sup>4</sup> and R<sup>5</sup>, together with the nitrogen atom to which they are bonded, are radicals of the formulae



in which

R<sup>14</sup> and R<sup>15</sup> are identical or different and are hydroxyl or hydrogen or a radical of the formula -(CH<sub>2</sub>)<sub>2</sub>-OH,

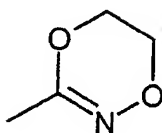
or

R<sup>14</sup> is hydrogen

and



$R^{15}$  is a radical of the formula



or

$R^{14}$  and  $R^{15}$  together form a radical of the formula  $=N-O-CH_3$ ,

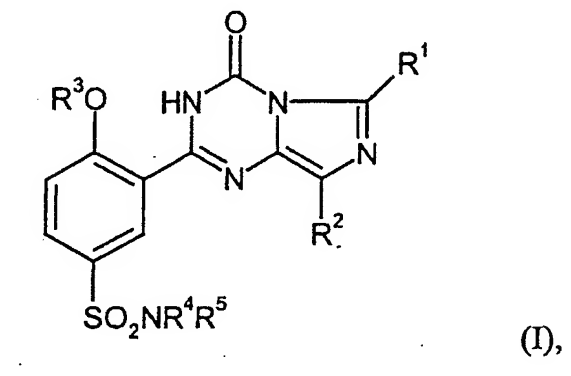
$R^{16}$  is hydrogen, pyrimidyl or a radical of the formula  $-(CH_2)_2-OH$

and the salts, hydrates, hydrates of the salts, N-oxides and isomeric forms thereof are employed as cGMP-stimulating compounds.

7. (Original) A pharmaceutical for the treatment and/or prophylaxis of diseases in which an improvement in and/or a cure of a syndrome can be achieved by improving the microcirculation of a tissue which contains a cGMP-metabolizing phosphodiesterase, which pharmaceutical comprises at least one cGMP-stimulating compound.
8. (Currently amended) A pharmaceutical for the treatment and/or prophylaxis of coronary heart disease, cardiac insufficiency, pulmonary hypertension, bladder diseases, prostate hyperplasia, nitrate-induced tolerance or diseases of the eye, ~~for the treatment and/or prophylaxis of~~ central retinal or posterior ciliary arterial occlusion, central retinal venous occlusion, optical neuropathy, ~~and of~~ macular degeneration, ~~and~~ diabetes, ~~and for the treatment of~~ disturbances of the peristalsis of the stomach and esophagus, of female infertility, premature labor, preeclampsia, alopecia, psoriasis, ~~the~~ renal syndrome, cystic fibrosis and/or cancer, which pharmaceutical comprises at least one cGMP-stimulating compound.
9. (Original) A pharmaceutical for improving perception, concentration performance, learning performance and/or memory performance, for improving perception, concentration performance, learning performance and/or memory performance following cognitive disturbances, age-associated learning and memory disturbances, age-associated memory loss, vascular dementia, craniocerebral trauma, stroke, dementia which occurs after strokes (post-stroke dementia), post-traumatic craniocerebral trauma, general disturbances of concentration, concentration disturbances in children suffering from learning and memory

problems, vascular dementia, dementia associated with Lewy bodies, dementia associated with degeneration of the frontal lobes including Pick's syndrome, Parkinson's disease, progressive nuclear palsy, dementia associated with corticobasal degeneration, amyotrophic lateral sclerosis (ALS), Huntington's disease, multiple sclerosis, thalamic degeneration, Creutzfeld-Jacob dementia, new variant Creutzfeld-Jacob dementia, HIV dementia, schizophrenia associated with dementia or Korsakoff's psychosis, which pharmaceutical comprises at least one cGMP-stimulating compound.

10. (Currently amended) A pharmaceutical as claimed in one of claims 7 to 9 which comprises, as cGMP-stimulating compound, at least one compound as defined in claims 4 to 6: imidazo[1,3,5]triazinone of the general formula (I)



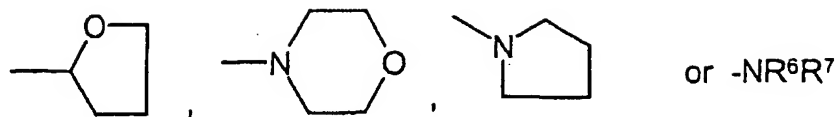
in which

R¹ is straight-chain or branched alkyl having up to 4 carbon atoms,

R² is straight-chain or branched alkyl having up to 4 carbon atoms or is (C₃-C₈)-cycloalkyl,

R³ is hydrogen or straight-chain or branched alkyl having up to 4 carbon atoms,

R⁴ and R⁵ are identical or different and are hydrogen, (C₁-C₆)-alkoxy or hydroxyl or are (C₁-C₈)-alkyl which is optionally substituted, up to 3 times, identically or differently, by hydroxyl, (C₁-C₆)-alkoxy or radicals of the formulae



in which

R<sup>6</sup> and R<sup>7</sup> are identical or different and are hydrogen or (C<sub>1</sub>-C<sub>6</sub>)-alkyl,

and/or, for its part, (C<sub>1</sub>-C<sub>8</sub>)-alkyl is optionally substituted by phenyl or phenoxy which, for their part, are optionally substituted, once to three times, identically or differently, by halogen, hydroxyl, (C<sub>1</sub>-C<sub>6</sub>)-alkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl or a radical of the formula -SO<sub>2</sub>NR<sup>8</sup>R<sup>9</sup>,

in which

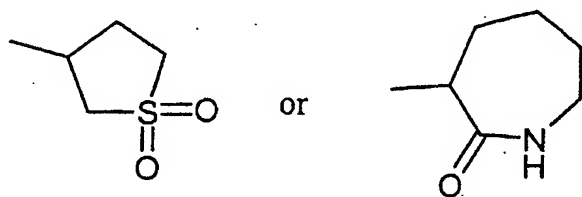
R<sup>8</sup> and R<sup>9</sup> are identical or different and are hydrogen or (C<sub>1</sub>-C<sub>6</sub>)-alkyl,

or

R<sup>4</sup> is hydrogen or methyl

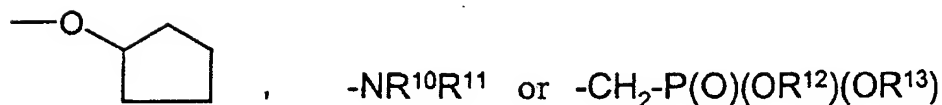
and

R<sup>5</sup> is radicals of the formulae



or

is phenyl which is optionally substituted, up to 3 times, identically or differently, by halogen, acetyl, (C<sub>1</sub>-C<sub>6</sub>)-alkoxy or radicals of the formulae



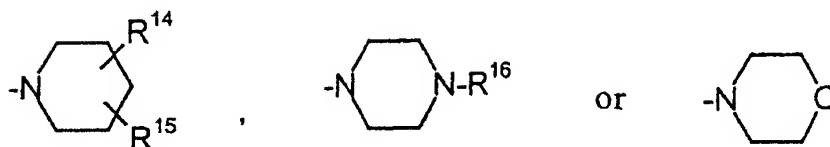
in which

R<sup>10</sup> and R<sup>11</sup> are identical or different and are hydrogen or (C<sub>1</sub>-C<sub>4</sub>)-alkyl,

R<sup>12</sup> and R<sup>13</sup> are identical or different and are hydrogen or (C<sub>1</sub>-C<sub>6</sub>)-alkyl,

or

R<sup>4</sup> and R<sup>5</sup>, together with the nitrogen atom to which they are bonded, are radicals of the formulae



in which

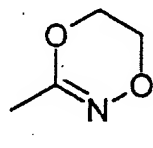
R<sup>14</sup> and R<sup>15</sup> are identical or different and are hydroxyl, hydrogen or (C<sub>1</sub>-C<sub>4</sub>)-alkyl which is optionally substituted by hydroxyl,

or

R<sup>14</sup> is hydrogen

and

R<sup>15</sup> is a radical of the formula



or

R<sup>14</sup> and R<sup>15</sup> together form a radical of the formula =N-O-CH<sub>3</sub>,

R<sup>16</sup> is hydrogen or (C<sub>1</sub>-C<sub>6</sub>)-alkyl which is optionally substituted by hydroxyl, or

is a 5- to 6-membered, aromatic heterocycle having up to 3 hetero atoms from the series, S, N and/or O,

and the salts, hydrates, hydrates of the salts, N-oxides and isomeric forms thereof.